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09/866,505	05/24/2001	Randolph L. Durrant	245/088	4458

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EXAMINER

TON, ANTHONY T

ART UNIT PAPER NUMBER

2661

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/866,505

Applicant(s)

DURRANT ET AL.

Examiner

Anthony T Ton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

PHIRIN SAM  
PRIMARY EXAMINER

*Phin*

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:
  - a) Term “device **200**” in page 7 line 8 is not associated with “device 100” shown in Fig.2.  
Examiner suggests changing this term to “device **100**”.
  - b) Term “system **100**” in page 7 line 14 is not associated with “system 200” shown in Fig.2.  
Examiner suggests changing this term to “system **200**”.
  - c) Term “devices 100 and 204 **reduces**” in page 7 line 20 is improper.  
Examiner suggests changing this term to “devices 100 and 204 **reduce**”.Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-16 and 25-27** are rejected under 35 U.S.C. 102(e) as being anticipated by *Cunningham et al.* (US Patent No. 6,366,217) hereinafter referred to as *Cunningham*.

a) **In Regarding to Claim 1:** *Cunningham* disclosed a monitoring system, comprising:

a central gateway configured to interface with the monitoring system to a WAN (*see Fig.1: 100 (monitoring system); node 118 (a central gateway); and a combination of data collection modules 110 and sensor interface modules 102 is a WAN*); and

a network of monitoring devices (*Fig.1: modules 102, 112 and 114 (monitoring devices)*), each monitoring device configured to acquire and transmit monitoring data to the central gateway, to receive monitoring data from other monitoring devices (*see col.6 line 16 – col.7 line 13*), and to relay the received monitoring data to the central gateway (*see col.7 lines 24-26*).

**b) In Regarding to Claim 2:** *Cunningham* further disclosed the network of monitoring devices further comprises a plurality of intermediate devices dedicated to relaying data within the monitoring system (*see Fig.1: devices 112 and 114*).

**c) In Regarding to Claim 3:** *Cunningham* further disclosed the monitoring devices, intermediate devices, and the central gateway comprise short range (*see col.13 lines 46-56: maximum distance of 600 ft. to 2000 ft. (hence, short range)*), low power radio modules (*see col.6 lines 16-24: low-power; and col.30 line 60 – col.31 line 6: power savings*).

**d) In Regarding to Claim 4:** *Cunningham* further disclosed the central gateway is configured to forward the monitoring data to a network-based monitoring application that resides on or is interfaced to the WAN (*see Fig.44: SLIPs, routers*).

**e) In Regarding to Claim 5:** *Cunningham* further disclosed the network-based monitoring application is configured to send configuration data to an individual monitoring device in the network of monitoring devices through the central gateway (*see Fig.49:*

*commercial network 6336, Internet 6334, Telemetry Gateway 6326, and Telemetry Interface Modules).*

**f) In Regarding to Claim 6:** *Cunningham* further disclosed communication between monitoring devices in the network of monitoring devices and between the network of monitoring devices and the central gateway occurs over packet based communication links (*see Fig.49: links used to connect 6318, 6326, 6328, 6330 and 6336 together*).

**g) In Regarding to Claim 7:** *Cunningham* further disclosed the central gateway is configured to interface the monitoring system to the WAN over a wireless communication interface (*see Fig.44: Wireless backbone; and Fig.49: communication between 6326-6330 and 6318-6324 via wireless links between these devices*).

**h) In Regarding to Claim 8:** *Cunningham* disclosed a monitoring system, comprising:  
a central gateway configured to interface the monitoring system to a network-based monitoring application (*see Fig.49: master telemetry device 6330 (a central gateway)*); and  
a network of radio telemetry devices (*see Fig.49: Telemetry devices 6318-6328*), each radio telemetry device comprising:

a monitoring device (*see Fig.49: 6302*),  
a radio module configured to communicate with other radio telemetry devices and the central gateway (*see Figs.20 and 30: SSR blocks*), and

a processor coupled with the radio module and the monitoring device (*see Figs.20 and 30: Micro-controller and CPU*), the processor configured to:

receive monitoring data from the monitoring device (*see Fig.20: Micro-controller 1420 receive data from 204*),

receive a command to establish a circuit switched data communication with the network-based monitoring application from the monitoring device (*see col.35 line 29 – col.36 line 65: IP command packet*), and

establish a packet data connection with the network-based monitoring application through the central gateway using the radio module in response to the received command (*see col.35 line 29 – col.36 line 67: SLIP datagrams, stream data, and radio data protocol packets*).

i) **In Regarding to Claim 9:** *Cunningham* further disclosed the network-based monitoring application is configured to establish a packet data communication with at least some of the radio telemetry devices through the central gateway in order to access monitoring data and/or configure the monitoring device portion of the radio telemetry devices (*see Fig.49: In which, some of devices 6318-6326 can communicate with device 6328 through the device 6330 (central gateway) via links 6332 and 6334*).

k) **In Regarding to Claim 10:** *Cunningham* further disclosed the monitoring system further comprising a plurality of interconnecting networks of radio telemetry devices (*see Fig.49: In which, the telemetry devices can be established in a plurality of interconnecting networks such as Internet, telephone wireline PSTN, NPCS or BPCS, and other wireless networks*).

l) **In Regarding to Claim 11:** *Cunningham* further disclosed at least some of the plurality of interconnecting networks are formed on an ad hoc basis (*see col.3 lines 33-48: wherein a supplemental controller transmits messages from a master controller to supplemental remote terminal units, and relays responses from the supplemental remote terminal units to the master controller (hence, the supplemental controller acts as an ad-hoc basis)*).

m) **In Regarding to Claim 12:** *Cunningham* further disclosed the network of radio telemetry devices includes modified radio telemetry devices dedicated to relaying data within the monitoring system (see Fig.49: *telemetry device 6326 which relays monitoring data from 6318-6324 to the master telemetry device 6330*).

n) **In Regarding to Claims 13 and 14:** all claimed subject matters of these claims have been disclosed by *Cunningham* as described in the claims 8 and 9 above. Therefore, the rejections to claims 8 and 9 would also apply to reject these claims 13 and 14, in a radio telemetry device as taught.

o) **In Regarding to Claim 15:** *Cunningham* further disclosed the radio telemetry device further configured to relay monitoring data from other radio telemetry devices to the central gateway so that it can be forwarded to the network-based monitoring application (see Fig.49: *the telemetry device 6326 can relay monitoring data from one or some of telemetry devices 6318-6324 to the master telemetry device 6330 (central gateway) and the monitoring data can be forwarded to the network operating center 6340 and data processing & customer monitoring center 6344 via wireline network 6336*).

p) **In Regarding to Claim 16:** *Cunningham* further disclosed the radio telemetry device configured to join a network of radio modules on an ad hoc basis (see the described in the claim 11 above).

q) **In Regarding to Claim 19:** *Cunningham* further disclosed the radio module is a short range (see col.13 lines 46-56: *maximum distance of 600 ft. to 2000 ft. (hence, short range)*), low power radio module (see col.6 lines 16-24: *low-power*; and col.30 line 60 – col.31 line 6: *power savings*).

r) **In Regarding to Claim 20:** *Cunningham* further disclosed the radio telemetry device configured to be a part of a plurality of interconnecting networks of radio telemetry devices (*see Fig.49: In which, the telemetry devices can be established in a plurality of interconnecting networks such as Internet, telephone wireline PSTN, NPCS or BPCS, and other wireless networks*).

s) **In Regarding to Claim 21:** *Cunningham* disclosed a radio telemetry device (*see Fig.49: one of telemetry devices 6318-6328*), comprising:

a monitoring interface, configured to interface the device to a monitoring device (*see Fig. 30: 2308*);

a radio module configured to communicate with other radio telemetry devices and to a central gateway (*see Fig.20: 1406-1416; and Fig. 30: 2304 (radio module), and Fig.49: 6330 (a central gateway)*); and

a processor coupled with the monitoring interface and with the radio module (*see Figs. 19 and 30: CPU*), the processor configured to:

receive monitoring data through the monitoring interface (*see Fig. 30: wherein CPU receives monitoring data through 2308*),

transmit the monitoring data to the central gateway using the radio module (*see Fig. 30: wherein CPU transmits the monitoring data via 2304*),

receive monitoring data from other radio telemetry modules using the radio module (*see Fig. 30: wherein CPU receives other monitoring data from other telemetry interface modules via the spread spectrum transceiver 2308*), and



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transmit the received monitoring data to the central gateway using the radio module (*see Fig. 30: transmits the received monitoring data to master telemetry 6330 (see Fig.49)by using 2304*).

t) **In Regarding to Claim 22:** *Cunningham* further disclosed the radio module is a short range, low power radio module (*see the described in claim 19 above*).

u) **In Regarding to Claim 23:** *Cunningham* further disclosed the radio module configured to be part of a network of radio telemetry devices (*see the described in claim 20 above*).

x) **In Regarding to Claim 24:** *Cunningham* further disclosed the network of radio telemetry devices is formed on an ad hoc basis (*see the described in claim 16 above*).

y) **In Regarding to Claims 25-27:** all claimed subject matters of these claims have been disclosed by *Cunningham* as described in the claims 1-14 above. Therefore, the rejections to claims 1-14 would also apply to reject these claims 25-27 because the apparatus of the monitoring system in the claims 1-14 can be used to practice the method steps of these claims.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Cunningham et al.* (US Patent No. 6,366,217) in view of *Numminen et al.* (US Patent No. 6,687,449) hereinafter referred to as *Numminen*.

**In Regarding to Claim 17:** *Cunningham* disclosed all aspects of this claim as set forth in claim 13.

*Cunningham* failed to explicitly disclose the radio module is a Bluetooth™ radio module.

*Numminen* explicitly disclosed such a Bluetooth™ radio module (*see col.2 lines 59-64*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a Bluetooth™ radio module, as taught by *Numminen* with *Cunningham*, in order telemetry devices can send monitoring data to a central controller in a short range. The motivation for doing so would have been to provide a short-range wireless data links between at least two apparatus in a radio data communication network (*see Numminen: col.2 lines 62-63*). Therefore, it would have been obvious to combine *Numminen* with *Cunningham* in the invention as specified in the claim.

6. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Cunningham et al.* (US Patent No. 6,366,217) in view of *Patton* (US Patent Application Pub No. 2002/0196789 A1).

**In Regarding to Claim 18:** *Cunningham* disclosed all aspects of this claim as set forth in claim 13.

*Cunningham* failed to explicitly disclose the radio module is a HomerRF™ radio module.

*Patton* explicitly disclosed such a HomerRF™ radio module (*see Para[0077] in page 6*).

At the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a HomerRF™ radio module, as taught by *Patton* with *Cunningham*, in order telemetry devices can send monitoring data to a central controller in a short range. The motivation for doing so would have been to run TCP/IP over wireless technology for communicating over short-range radio links (*see Patton: Para [0077]*). Therefore, it would have been obvious to combine *Patton* with *Cunningham* in the invention as specified in the claim.

#### ***Examiner Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony T Ton** whose telephone number is **571-272-3076**. The examiner can normally be reached on M-F: 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Ken Vanderpuye** can be reached on **571-272-3078**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

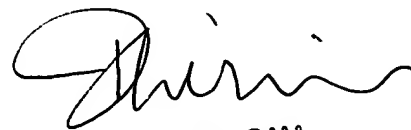
Respectfully submitted,

by : *Anthony T. Ton*

Anthony T. Ton

*Patent Examiner*

November 21, 2004



**PHIRIN SAM  
PRIMARY EXAMINER**